

# World Health Organization

## TECHNICAL ADVISORY GROUP ON POLIO ERADICATION FOR THE HORN OF AFRICA COUNTRIES

11<sup>th</sup> Meeting Report

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12 to 14 August 2014  
Amman, Jordan

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## Executive Summary

The 11<sup>th</sup> meeting of the Technical Advisory Group on Polio Eradication for the Horn of Africa Countries (HOA-TAG) was held from 12 to 14 August 2014 in Amman, Jordan. The purpose of the meeting was:

- to review and provide recommendations on the situation, progress and plans for closing the outbreak with specific focus on:
  - the regions of Puntland, and South Central Somalia inaccessible/accessible areas, in Somalia, and
  - the Somali Region of Ethiopia
- to review and provide recommendations on risk mitigation strategies with particular focus on South Sudan, and finally
- to review and provide recommendations on sensitivity of surveillance in all HOA countries.

The meeting took place in the context of confirmation of new WPVs in January 2014 in Ethiopia and in May 2014 in Somalia.

The TAG noted the achievements attained by the countries and appreciated their efforts in following up and reporting on the status of implementation of the 10<sup>th</sup> HOA-TAG recommendations. However, it noted that some of the countries had not implemented the recommendations fully and several lacked substantial evidence to show achievements.

The TAG regretted the absence of seven of the ten Ministry of Health representatives, due to logistic barriers.

The TAG expressed deep concern on the continuation of transmission in the HOA for more than one year now, particularly the situation in Somalia. It is highly possible that pockets similar to Jeriban, which is accessible but hard to reach, are existing in different parts of Somalia, as well as possibly in other countries such as Ethiopia and Kenya.

The TAG further noted that the three inaccessible Northeastern states of South Sudan, with suboptimal surveillance and inability to vaccinate, present substantial risk to the programme in the HOA.

The TAG reviewed the achievements of Phase II (November 2013 to April 2014) outbreak response activities against its objectives, and concluded that only 2 of 4 objectives of Phase II had been achieved. The critical objectives of (1) interrupting transmission in Ethiopia by end of 2013 and (2) sustaining high population immunity in areas at high risk of transmission were not achieved: WPV was detected in Somali Region in Ethiopia in January 2014 and in Puntland, Somalia in May 2014.

***Overall, the TAG concluded that continuation of transmission is inevitable in Somalia and in the Somali Region of Ethiopia unless there is improvement in quality of SIAs, better reach and access to pastoral and hard to reach communities, and improvement in surveillance quality.***

The TAG made the following key recommendations:

- a) In view of the limited Government participation due to logistic reasons, country teams with no Government representation should organise a high level formal briefing of their respective Governments, for reviewing/endorsing HOA TAG observations and recommendations, within one week following their return to their countries. The outcomes of these meetings should be shared with Regional offices and TAG members by early September.
- b) Countries conducting SIAs should prepare and submit fund requests on time, using the required budget template, and should review the process of fund flows to the field, to ensure that field workers get paid on time, by end November 2014. The HOA coordinator should continue tracking this process.
- c) Countries should identify one focal person from each organization and, with them, jointly develop country-specific (and simple) operational and communication plans using all available information/experience/resources/networks. Countries should also develop and implement uniform reporting systems and explore other opportunities like 'water point vaccination' and transit point vaccination strategies by end Oct 2014.
- d) Countries without polio within the previous 12 months should critically review and update their national plans for outbreak response to detection of WPV and VDPVs, and consider with partner support, implementing polio outbreak simulation exercises before the next TAG meeting.
- e) Countries should continue expanding independent monitoring, focusing in areas with potential problems and hard to reach populations. Special focus should be given to supervision and monitoring of pastoral communities and hard to reach populations.
- f) The HOA Coordination office should standardize the documentation of cross border activities including number, types and timing of meetings, by mid-November 2014 and compare trends of cross border activity data over time.
- g) The TAG recommends that the infected and at risk countries (Somalia, Ethiopia, Kenya and South Sudan) should identify and list areas accessible for SIAs but having suboptimal SIA and surveillance quality. For areas so identified, countries should develop area specific plans for addressing these problems before November 2014.
- h) The TAG endorses the plan, including objectives, strategies and SIA timing, presented for closing the outbreak and risk mitigation (Annexure 2).
- i) The TAG recommends that an accountability frame work similar to the one in Somali region of Ethiopia be developed and implemented by partner agencies for Somalia, and other high risk settings, by mid November 2014.
- j) Social mobilization should be integrated with operations at all levels. Countries should rapidly improve planning, management, and field supervision of social mobilization efforts. Mobilisers must be trained, equipped with educational aids, and planning and reporting tools by November 2014.

## I. Preamble

The 11<sup>th</sup> meeting of the HOA TAG was held from 12 to 14 August 2014 in Amman, Jordan under the chairmanship of Dr Jean-Marc Olivé.

The last meeting had been held in February 2014 in Nairobi, followed by one teleconference on 25 June 2014 to discuss the status of implementation of the 10<sup>th</sup> TAG recommendations.

Globally, the number of WPV1 cases in endemic countries in 2014 had increased markedly from 2013, from 67 through 5 August 2013 to 117 in the same period in 2014. The increase was mainly in Pakistan from 22 WPVs as of August 2013 to 104 in the same period in 2014. Nigeria however had recorded a commendable decrease from 42 WPV1 to only 5 in the same period.

Of the three outbreak countries in HOA, Kenya had not reported any wild poliovirus since July 2013 while in Ethiopia the last WPV1 was in January 2014. However, in Somalia the last WPV was as recent as 13 June 2014.

Since the last TAG meeting in February 2014 there has been a marked reduction in the number of WPVs detected in the HOA. That said, the wild polio viruses detected in Ethiopia and Somalia in January and May 2014 respectively were mainly due to weak AFP surveillance and poor SIAs quality:

In Somalia, a total of 198 WPV type 1 cases were confirmed in 2013 in 47 districts, but only 4 have been detected (so far) in 2014. The significance of these new wild polioviruses is that the first case with date of onset of 11 May 2014 was closely related to the case in Yashid district in Banadir with date on onset 11 July 2013. Thus this virus had been circulating undetected over the last 10 months. This further raises concern because Jeriban is not an area which is security compromised, although it is very remote. Index case investigation revealed that the child had received a total of six OPV doses - four in routine and two during SIAs. Three other cases linked to the first case were confirmed from the same village, including one in an adult who eventually died.

Similarly, in Ethiopia the only 2014 WPV case (onset of paralysis on 5 January 2014) is linked to a case which was detected at least 5 months earlier and had not been identified since then.

Across the countries of the Horn, the response to the HOA outbreak continued but with a focus on the highest risk areas. Since the last TAG in February 2014, Somalia has implemented 2 NIDs, 5 SNIDs and 4 SIADs. Three of the SIADs were in the latest WPV areas in Mudug (Jeriban) and the surrounding districts. Ethiopia has implemented 7 SIAs, 5 of which were after the WPV with onset 5 January 2014. Kenya has implemented 2 SNIDs and 1 NID, while Sudan conducted 1 NID and 1 SNID, with Yemen implementing 2 NIDs. South Sudan conducted 2 NIDs but because of the current insecurity, the three Northeastern states of Jonglei, Unity and Upper Nile were not covered.

The HOA countries have continued to implement proven interventions including the updating of micro plans with a focus on nomadic and other mobile populations, using permanent and transit vaccination points, conducting SIADs whenever indicated, and targeting expanded age groups.

The current epidemiology shows a major shift from widespread transmission to sporadic detection of cases that had been missed for long periods, and subsequently showing up in the most remote

communities. The question which remains to be answered is how many more of these areas harboring WPV exist and have not been reached.

The TAG meeting objectives were therefore set as:

- a) to review and provide recommendations on the situation, progress and plans for closing the outbreak with specific focus on Mudug region of Puntland, Somalia, the inaccessible/accessible areas of South Central Somalia, and Somali region, Ethiopia
- b) to review and provide recommendations on risk mitigation strategies with special focus on South Sudan, and
- c) to review and provide recommendations on sensitivity of surveillance across HOA countries.

## **II. Conclusions and Recommendations**

### **1. General Conclusions**

The TAG noted the achievements attained by countries and appreciated their efforts in following up and reporting on the status of implementation of TAG's earlier recommendations. However, it also noted that some of the countries did not implement recommendations fully, and some lacked substantial evidence to show the achievements.

TAG deeply regretted the absence of seven of the ten Ministry of Health representatives due to logistic barriers.

TAG compliments partners on joint operations and communication country presentations, and combined presentations on HOA. TAG also expressed satisfaction on expansion of cross border coordination meetings between most of the countries. TAG appreciates the efforts at initiating systematic documentation on pastoral and mobile populations in HOA, including the review of existing literature and conducting operational research.

However, TAG expressed deep concern on continuation of transmission in HOA for more than one year now, particularly the situation in Somalia. It concluded that it is highly possible that pockets similar to Jeriban, which is accessible but hard to reach, are existing in different parts of Somalia as well as in other countries including Ethiopia and Kenya. TAG noted that pockets of accessible areas with suboptimal quality of SIA and surveillance exist in Somalia, Somali region of Ethiopia and North Eastern Kenya.

The long periods of undetected transmission in HOA, evidenced by long genetic gaps seen in cases from Somalia and Ethiopia, raise serious concerns on the quality of surveillance.

Further, in spite of some progress in inaccessible areas of South Central Somalia, the overall number of not reached children under 5 years there remains close to half a million, posing additional serious risk to stopping transmission.

TAG noted that due to inadequate supervision, full potential of existing ground staff is not being used by the program in Somalia and Somali region of Ethiopia.

In addition, the three inaccessible states of Northeastern South Sudan that have sub-optimal surveillance and inability to vaccinate present substantial risk to the program in the Horn of Africa.

TAG congratulated the governments of Uganda, Kenya and Ethiopia on polio activities contributing to improvement of routine immunization (RI). TAG noted that all countries except South Sudan and Somalia have taken steps to strengthen RI and early evidence of improved coverage is seen. South Sudan and Somalia have made similar integrated plans but have yet to start implementation.

TAG reviewed the achievements of outbreak response Phase II against set objectives and concluded that 2 of 4 objectives were achieved and two were not achieved:

Objective	Achievement
1. Interrupt transmission in south central zone, Somalia by April 2014	<b>No case reported from South central Somalia since Nov 2013.</b> However new WPV in Puntland is closely linked to Banadir (SOM-BAN-YQA-13-011 with date of onset in July 2013)
2. Interrupt transmission in Ethiopia by end 2013 & sustain high population immunity in the epidemiologic block (Banadir, rest of SCZ Somalia & NE Kenya)	<b>Not achieved.</b> Case detected in Ethiopia with onset on 5 <sup>th</sup> Jan 2014
3. Sustain high population immunity in areas at high risk of transmission. The high risk areas include: <ul style="list-style-type: none"> <li>Ethiopia: Gambella, Benshangul, Afar and some zones in Amhara, Tigray, Oromia and SNNPR</li> <li>Kenya: Turkana, Nairobi, high risk areas of Rift valley and Coast</li> <li>Somalia: Somaliland &amp; Puntland</li> </ul>	<b>Not achieved.</b> Transmission detected in Puntland with onset in May/June 2014
4. Continuation of vulnerability reduction activities and preparation for outbreak response	<b>No transmission detected</b>

*In global terms, the TAG concluded that the continuation of the transmission is inevitable in Somalia and Somali region of Ethiopia if there are no improvements in the quality of SIAs, reaching the pastoral and hard to reach communities, and improving surveillance.*

## 2. Recommendations

### Cross Cutting Recommendations

1. In view of the limited Government participation, country teams with no Government representation should organize a high level formal briefing of their respective Governments, for reviewing and endorsing HOA TAG observations and recommendations, within one week following their return to their country. The outcomes of these meetings should be shared with Regional offices and TAG members within 2 weeks.
2. ICC or TWG or similar bodies at National level should review the status of implementation of TAG recommendations, and share reports quarterly with the HOA coordinator's office. The HOA coordinator should monitor implementation of recommendations from TAG, and outbreak response assessments, and include the status in the HOA bulletin on monthly basis for outbreak countries and quarterly for other countries.

3. Reporting on implementation status should be supported by objective data. A uniform template for presentations should be shared by the HOA coordinator with the countries for presentations to the TAG at least 1 month before the next TAG meeting.
4. Countries should prepare and submit requests for funds on time using the required budget template. A review of the funds flow to the field, with the preparation of a plan to ensure that field workers get timely payments, should be done by all countries by end November 2014. The HOA coordinator should continue tracking the process.
5. For *Pastoral, Nomadic and Mobile* populations, the TAG recommends:
  - a. Countries should identify one focal person from each organization and jointly develop a country specific (and simple) operational and communication plan, for reaching these populations, using all available information/experience/resources/networks, by end October 2014.
  - b. The resulting microplans for these population groups should be updated and validated regularly including location data. This process should also involve representatives from these population groups, and from agencies/organisations working with them.
  - c. To assist in regularly reaching nomadic/pastoral communities in a sustainable manner.
  - d. The programme should identify focal points (e.g., community leaders) within the community as the link between the programme and the community.
  - e. Countries should develop and implement uniform reporting systems.
  - f. Countries should explore other opportunities like 'water point' and transit point vaccination strategies
  - g. Countries should maximize the opportunities to reach these population groups, for other health interventions.
  - h. Finally, countries should tailor communication products and tools to the needs of mobile population groups (pastoralists, migrants, refugees, IDPs) by mid November 2014.
6. An accountability frame work similar to the one in Somali region of Ethiopia should be developed and implemented by partner agencies for Somalia, and other high risk settings by mid November 2014.
7. Countries without polio within the previous 12 months should critically review and update their national plans for outbreak response to detection of WPV and VDPVs. They should also consider, with partner support, implementing polio outbreak simulation exercises before the next TAG meeting.
8. TAG appreciates Kenya for documenting and presenting on vaccine management. TAG reiterates earlier recommendations that other countries should also implement and document their vaccine management practices (vaccine utilization and reporting at district level) by November 2014.
9. The HOA coordination office should standardize the documentation of cross border activities including the number, types and timing of meetings, by mid November 2014, and compare trends of cross border activity data over the time.



10. Countries should continue expanding independent monitoring, focusing on areas with potential problems and hard to reach populations. Special focus should be given to supervision and monitoring of pastoral communities and hard to reach areas.
11. TAG strongly recommends that the infected and high risk countries (Somalia, Ethiopia, Kenya and South Sudan) should identify and list areas accessible for SIA but having suboptimal SIA and surveillance quality. For areas so identified, countries should develop area specific plans for addressing these problems before November 2014.
12. The HOA Coordination office should compile and track vaccination at permanent transit vaccination points across the Horn, and present the number of those vaccinated in the HOA bulletin, from October 2014 onwards.
13. In areas with specific surveillance concerns, community based surveillance (CBS) could be explored for strengthening surveillance; if implemented, impact should be documented. Efforts should be taken to build upon and integrate with other community based surveillance efforts such as Guinea worm. Areas with and without CBS should be compared.
14. The TAG endorses the plan - including objectives, strategies and SIA timing - presented for closing the outbreak and risk mitigation (Annexure 2).
15. UNHCR and IOM HOA offices should be invited to participate in TAG meetings.
16. The HOA Coordinators Office should advocate for, and facilitate, the conduct of cross border meetings involving Yemen, Somalia, Djibouti, Ethiopia, UNHCR and IOM, preferably in Djibouti before end 2014.
17. The TAG noted the progress in IPV introduction in routine immunization and looks forward to a report on the status in its next meeting. Ideally countries should firm up and begin to implement a plan for using polio infrastructure for strengthening RI by end 2014.
18. Social mobilization should be integrated with operations at all levels. Countries should rapidly improve planning, management, and field supervision of social mobilization efforts. Mobilisers must be trained, equipped with educational aids, and planning and reporting tools before the November SIAs.
19. The analysis of missed children and campaign awareness at the sub-national level should be available to programme managers immediately after each round from November 2014 onwards. Summary evidence of communications actions taken as the result of this analysis and outcome should be presented to the next TAG meeting.

## Country Specific Recommendations

### *Somalia:*

- The WHO Country Office with support of Regional and HOA Coordination Office, and partners, should revise the existing plan of action to develop a 6 month action plan with prioritization of interventions and timeline.
  - Strengthen basics of surveillance and SIAs in Puntland and other accessible areas;
  - Identify pockets of low population immunity like Jeriban, and develop area specific plan for addressing issues including updating and validation of micro plans;
  - Surveillance intensification by strengthening community surveillance, collecting stool samples from healthy children in high risk areas/ populations, continuing contact sampling for every AFP case and close tracking of surveillance in high risk areas;

- Intensify monitoring in these high risk areas, using all available methods and resources.
- For areas not accessible for vaccination, the program should continue the strategy of doing SIADs in newly opened areas and maintain a state of preparedness. Also, it should continue exploring low key vaccination efforts with other players.
- While the permanent vaccination at transit points strategy has given good results, it should be reviewed with focus on children coming out/ going into non-SIA (inaccessible) areas and further strengthened. Data from permanent vaccination transit points should be disaggregated for access and tracked.
- In view of no SIAs planned in November and December, the country should plan for one additional SIA in Nov/Dec with scope guided by the then prevailing epidemiology. If CHDs do not take place, a second SIA needs to be planned for Nov/ Dec.
- The country office with support of regional and HOA coordination office should review the human resource requirement of the program at national and subnational level, and ensure that staffing is commensurate with the emergency nature of the ongoing outbreak. Partners should work to ensure the country program has adequate human resources. WHO should quickly fill the critical vacancies at national level.
- The programme should develop mechanisms for close supervision of staff engaged in the polio programme at all levels in line with the accountability framework.
- The TAG noted that following earlier recommendations, RI has been started in some of the health facilities. It recommends that this should be done in all health facilities of the country and progress should be presented in the next TAG and included in the HOA bulletin.
- The TAG strongly recommends conducting the follow up quarterly assessment before end September.
- The TAG recommends establishing an Inter-agency Coordinating Committee (ICC).
- IM methodology, instruments, training and implementation should be standardised. Focal points should be identified for compilation and comparative analysis that will be used for validating and updating micro plans.
- High level advocacy should be conducted by WHO and UNICEF Somalia towards local authorities to ensure effective reach, and use of program financial resources, at the lowest level of implementation.
- The programme needs to expedite recruitment, training, and deployment of district social mobilization coordinators. And to ensure the outputs of this workforce are monitored and assessed on a quarterly basis.
- The programme needs to rapidly scale-up the use of radio mass communication platforms, including BBC and VoA and other relevant FM stations, and ensure the content is guided by the social data and needs of the high-risk groups.

#### *Ethiopia:*

- Suboptimal surveillance in Somali region should be addressed by expediting the implementation of a plan developed locally, with close supportive supervision.
- Strengthening of capacity of immunization program should be sustained.
- The issue of timely fund flow to the field should be further addressed by fully implementing the plan presented to the TAG.
- TAG strongly recommends conducting quarterly follow-up assessments in September.

- Strengthen efforts in the Somali region and Dollo Zone to map and engage with pastoralist groups. Strengthen special approaches to reach missed children at water points, pastures, and markets. The viability of livestock market strategy to be further assessed.

#### *Kenya:*

- The country should allocate government funds for polio eradication activities.
- The programme should explore all options (including transit vaccination posts) for reaching to the populations in areas bordering with Somalia which are inaccessible to the program for vaccination and surveillance, and report the results of these explorations to the TAG.
- The programme should intensify social mobilization efforts at sub-national level in the areas with low campaign awareness and significant mobile populations. Outcomes should be presented at the next TAG meeting.

#### *South Sudan:*

- The TAG expressed serious concern on surveillance and the immunity profiles in conflict areas. It recommends that the programme should do detailed analyses of these areas, and use all available opportunities (including ceasefire) for strengthening.
- Surveillance, RI and SIAs activities in IDP camps should be continued and strengthened with documented follow up visits. No contact opportunities should be missed for immunization.
- There is need for refined estimates of the population in conflict areas, as many would have shifted to IDP camps.
- Use the on-going emergency C4D interventions as a vehicle to maintain high awareness about polio and routine immunization services.
- Sustain the current human resources support from the partners until the early part of 2015, considering the complex humanitarian emergency and limited HR capacity of the Government.

#### *Djibouti:*

- The full commitment of government is needed to ensure the success of program.
- The last TAG recommendations should be implemented fully.
- Establish an ICC.
- In the context of the cross border meeting referred above, opportunity should be used for advocacy with highest level authorities.
- Ensure continuity of technical support of WHO.

#### *Uganda:*

- The country should document cross border activities, including cross border vaccination.
- Given that surveillance still remains a concern, the plan for EPI and surveillance review should be carried out forthwith, and recommendations therefrom should be fully implemented.
- TAG noted that 7% of NPAFP cases are with zero dose. The country should identify reasons, and take remedial actions.
- There needs to be a shift from activity-focused to result-focused reporting and analysis of communication outcomes. The programme should use the foreseen EPI KAP research as an opportunity to collect social data about polio.

### *Sudan:*

- Sudan should continue and document cross border vaccinations at border of conflict areas within country.
- The activity of surveillance, RI and SIAs in IDP camps should be continued and strengthened with documented follow up visits.
- TAG is deeply concerned about the inability to immunize children in South Kordofan and insecure areas of Blue Nile. The programme should explore innovative ways to reach these children.

### *Eritrea:*

- The HOA coordinator should continue to facilitate the cross border meetings between countries.
- Country should continue doing SOS (Sustainable Outreach Strategy).

### *Yemen:*

- Country should address issue of surveillance quality in coastal districts, particularly in view of lack of funds / personnel for AFP surveillance.
- The activity in Jowf Governorate being done through ARDA NGO is appreciated and should be continued.
- Permanent vaccination points should be reviewed, and expanded, in view of population movements between Yemen and Puntland of Somalia.
- The TAG recommends that polio eradication should be part of the agenda of every ICC meeting.
- Detailed analysis of clusters of refusals and conversions at sub-national level must be regularly reported. Reasons for “anti-vaccine” sentiment must be fully understood. Relevant communication strategies to address these refusals should be implemented.
- The TAG urges EPI Yemen to tackle the issue of health facilities which are not providing RI services or are not functional; outreach services should be more regular with shortened intervals of service.

### *Tanzania:*

- Continue to implement the surveillance improvement plan.

### *Laboratory:*

- TAG congratulates the labs for clearing the backlogs
- The program should communicate changes in demand to the lab network well in advance.
- Lab should implement the plans for expansion of environmental surveillance.

### **Next meeting of the TAG**

The next meeting of the HOA TAG is proposed to take place during the week of 3 - 5 February 2015 in Nairobi, Kenya.

The TAG will also hold a virtual meeting through tele conference on 10 November to follow up on the progress.

## Annexure I: Country Updates

### Somalia

The 10th HoA TAG made 10 country-specific recommendations; all of which were implemented and key recommendations of the 2<sup>nd</sup> outbreak assessment mission (April 2014) were totally implemented or are being implemented.

In 2014, four WPV cases including a suspected adult polio death (29 years) were notified from Tawfiq village in Jeriban district with dates of onset of paralysis in May and June 2014. These cases were zero-doses and came from remote and nomadic communities of Mudug region (North East zone). The Jeriban cases occurred after a period of almost 6 months (previous case from Bosasso district, date of onset 22 December 2013). Genetic sequencing of the Jeriban WPV showed close link to a WPV that had circulated in Banadir region (Yashid district) in July 2013.

The outbreak was promptly investigated by a joint WHO/UNICEF/MOH team in Jeriban and Tawfiq town. Three rounds of SIADs were conducted in Mudug region and 2 neighboring districts of Bari region targeting <5, <10 and all age groups.

The Jeriban cases highlighted gaps in the Somalia program. These gaps included the existence of unreached nomadic and remote communities, surveillance gaps (missed circulation of WPV for more than 10 months), SIAs quality gaps (missed population from remote and nomadic communities), the persistent issues of inaccessibility with an estimated half-million children <5 years in 23 districts not reachable with OPV; low routine immunization.

*SIAs and IM:* An intensive and flexible SIAs plan including NIDs, and SNIDs targeting children of various age groups (<5, <10, all age groups) in districts of Somalia is being implemented. Reported administrative coverage for all rounds varies from 80% to 90% in most districts. IM was expended from 49 districts in 2013 to 66 districts in 2014 (representing 73% of all SIAs districts in the country). Analysis of IM data for program improvement is now effective. Plans to introduce LQAs to measure the impact of SIAs are being finalized. Children however continue to be missed during successive rounds of SIAs in remote and nomadic communities. Comprehensive strategies to locate and reach these communities with OPV need to be developed.

*Remote and nomadic communities sustained WPV circulation in Somalia:* Remote and nomadic communities in Somalia (in accessible and inaccessible areas) exist and pose a serious risk to WPV outbreak interruption in Somalia. Mapping of these communities along main roads, through elders, local partners, local authorities and UN agencies was initiated for districts of North-East and North-West Zones. Selection of polio volunteers/informants from these remote communities was also conducted to support AFP surveillance and SIAs micro-planning. Improved micro-plans were developed. As a result of mapping remote and nomadic communities, an additional 6000 children were identified and targeted for SIAD in Puntland.

*Accessibility:* Accessibility remains a challenge in controlling the outbreak. As the result of military operations in South and Central, 25,000 additional children <5 years from four districts became accessible for SIAs in 2014: Hudur, Wajid, Burdobo and Mahas. Four rounds of SIADs were conducted or are being conducted in 3 of the 4 newly accessible districts, targeting <5, <10 and all age groups. SIADs in Wajid district will be conducted as soon as the cold chain is rehabilitated.

Despite this progress, near to half-million children <5 years are still not accessible with OPV in 23 districts of South Central Somalia. Throughout 2013 and 2014, efforts to reach children in non-accessible districts of South and Central Somalia have yielded limited results. Local partners have been unable to secure authorization to conduct vaccination in inaccessible districts.

*Transit-point vaccination (TPV) and permanent vaccination posts (PVP):* To prevent the spread of transmission from infected areas to other areas, 300 permanent vaccination posts have been established around inaccessible areas and at cross-country borders to provide OPV to children under 10 years. 260,000 people are vaccinated on average every month in those TPV sites of which on average 5% are vaccinated for the first time. The highest proportions of zero-doses at TPV was reached in South zone (10-15% zero-doses). PVP are also established in 36 major IDP camps in central zone, vaccinating on average 7,000 children per month.

*Community surveillance:* Community surveillance of AFP cases through 353 village polio volunteers (VPV) is now fully operational all over the country, with demonstrated impact (22% of AFP cases notified by VPV in 2014). VPVs support polio eradication activities at the community level including support to active case search of AFP cases, SIA planning and community mapping. The extension of VPV to additional remote and nomadic communities is under consideration.

*AFP surveillance:* The cases in Jeriban pointed to gaps in AFP surveillance. AFP surveillance activities were strengthened throughout the country, with focus on remote and nomadic communities. Review of AFP surveillance indicators by accessibility status reveals that, in 2014, NP/AFP rate was 7.8 in accessible districts and 6.7, 7.7 and 7.4 in inaccessible, partially accessible and districts accessible with security challenges respectively. The national non-polio AFP rate in 2013 (annualized) is 7.8/100,000 (14.2 in North-East zone, 5.2 in North-West zone, 7.4 in Central zone and 8.8 in South zone) and stool adequacy 87% (85%, 100%, 100%, 94% in NE, NW, C and S zones respectively). At sub-national level, none of the 19 regions had NP-AFP detection rate below 2/100,000. These indicators at national and sub-national levels hide existing low performance at district level. As of August 2014, 20 districts in North Eastern and South Somalia had NP-AFP<2. As part of the strategies to improve WPV detection, the country is conducting, in addition to contact sampling, collection of stool samples from healthy children in silent districts. Active search for AFP cases through the extensive network of polio officers and VPVs was intensified at reporting sites and within the communities. More than 1300 community mobilisers recruited by UNICEF will be trained to support AFP notification.

*Routine immunization:* Routine immunization remains low in Somalia. Administrative coverage for OPV3, at the national level was below 60% in 2012 with large sub-national discrepancies (33% in SCZ, 45% in NEZ and 85% in NWZ). Data suggests that only with only 32% of children were fully immunized in 2013. Activities to strengthen/re-establish routine EPI in inaccessible and newly accessible areas are ongoing; a routine immunization improvement plan was finalized; rehabilitation of cold chain infrastructure (expansion of capacity; repair of equipment, cold chain training) is almost completed; the supply chain management is functional; IPV introduction into RI is planned for 2015. The polio infrastructure continues to support routine immunization in Somalia; a joint WHO UNICEF polio legacy plan highlighting the support of polio infrastructure to routine immunization after the outbreak is finished was recently finalized.

*C4D:* The intense outbreak schedule in response to the ongoing outbreak continues to pose serious communication challenges. The program continues to implement various strategies to maintain awareness of secure adherence of Somali population to polio vaccine. These strategies include high level advocacy, (President, Prime Minister, ministries), religious leaders advocacy (mosque announcements, religious leader involvement for Hajj and Ramadan campaigns), school engagement (Ministry of Education, schools teachers, etc.) especially for <10 and all age group vaccinations, media engagement, interactive SMS messaging and integration of polio messaging with other services (nutrition, WASH, EPI). In addition, 1312 UNICEF community mobilisers are recruited in North East Somalia to support SIAs and AFP notification. The recruitment of 36 district & 7 regional coordinators is being finalized.

## Ethiopia

*Epidemiology:* Ethiopia was the third country in the Horn of Africa, following Somalia and Kenya, to be infected with WPV1 since the onset of the outbreak in April 2013. To date, Ethiopia has 10 confirmed WPV1 cases, all within the Dollo Zone of Somali Region. The date of onset of the first case was 10 July 2013 and of the last case is 5 January 2014.

*Outbreak response activities:* Ethiopia has conducted ten rounds of SIAs in 2013 and 2014, including 2 nationwide campaigns in late 2013 and SNIDs in high-risk regions and zones with a focus on Somali Region. In 2014, several SNIDs prioritizing high risk zones have been implemented during January, March, May, June, and July, targeting under-15 and under-5 populations. Several efforts have been made progressively to improve the quality of the SIAs and reach all target children. A comprehensive micro planning tool was adapted and instituted in a bottom up approach with validation in high risk areas and review between rounds. Illustrative materials for vaccinators highlighting key quality aspects (such as mapping) were developed and translated for use in Somali Region. Innovative approaches for reaching special groups and areas were implemented in Somali region (SIADs, mobile teams, engagement of armed forces, intensified cross border vaccination, water point strategy). Strengthening of monitoring and supervision was done through development and implementation of a monitoring dash board in Somalia to determine level of preparedness for SIAs, deployment of more supervisors in hard to reach areas and refining of tools to expand on reasons for absent children. The human resources surge provided by FMOH, RHB and partners has been maintained with increase in EPI Facilitators in the Somali Region by 13.

Cross border collaboration has been heightened, particularly with Somalia and Kenya, which resulted in joint planning, launching and implementation activities in June and July. Permanent vaccination posts continue to function at transit and cross border points in Somali (44), Gambella (7) and Benshangul Gumuz (5) regions providing OPV and other vaccines for refugees, pastoralists and travellers.

Coordination was further strengthened through the inauguration of a command post in the outbreak zone, chaired by the Zonal Administrator with participation from partners. Efforts were made to address operational funds disbursement delays in the last two rounds including advance funding from WHO and the Government. The SIA schedule was successfully maintained over the last two rounds in Somali.

The communication strategy included continued engagement of the social mobilization (SM) network in the Somali Region and other high-risk regions of Gambella and Benshangul Gumuz with emphasis on systematic collection and use of social data. This included use of the revised SIA tools (IM, RCS) alongside communication surveys and studies documenting reasons for missed children; evaluation of the SM network and a rapid assessment of livestock markets and clans for systematic engagement. Collaboration with local networks such as Islamic Affairs Supreme Council partnership and focused support to Kebele SM Networks was strengthened. Data from the June round shows increased involvement of these committees for polio immunization -- 89% of Somali social mobilization committees were active in round 9, which continue on an upward trend<sup>1</sup>.

Independent monitoring data indicates improvement in coverage over time: close to 90% of districts have achieved at least 95% coverage in the past four rounds, and over 95% of districts in Somali Region have less than 5% zero dose children among those reached. However, coverage among nomadic and pastoralist communities, particularly in Dollo zone, remains sub optimal.

*Surveillance status:* AFP surveillance at national level continues to meet certification standard performance. Marked improvement in surveillance performance is noted in 2014 compared to 2013: 64% of zones have achieved the two key performance indicators by week 31 in 2014, compared to 48% in 2013. By week 31, all regions have achieved the minimum detection with Somali Region having the highest detection at 6/100,000 under-15 population (the national average is 3/100,000). However, stool adequacy rates in Somali (69%), Gambella (43%) and Harar (67%) are below the minimum expectation. Efforts to strengthen surveillance, notably in Somali Region, since the last TAG, included human resources surge for surveillance, initiation of community based surveillance, capacity building, and supervision and review meetings at national and regional level.

*Routine immunization:* Special effort was made to implement the national routine immunization improvement plan through renewed political leadership and commitment at different levels, deployment of 35 TAs to poor performing zones (6 in Somali Region), national micro-planning activities, capacity building, cold chain expansion (170 solar refrigerators in remote areas, 650 ice lined refrigerators and 8,000 vaccine carriers were distributed in 2014) and maintenance (601 refrigerators maintained in 2014), and continued engagement of the polio infrastructure in routine EPI strengthening.

*Challenges:* Routine EPI and SIA coverage among pastoralist and nomadic populations remains suboptimal including in the outbreak zone. Funds disbursement delays at the lower level still need to be well addressed. Community awareness about AFP case detection and reporting is suboptimal, as such as timely detection, is a challenge in some zones of Somali Region. Mechanisms to monitor the impact of the innovative communication approaches need to be defined. Given the long duration of the outbreak, maintaining emergency mode is emerging as a challenge at all levels.

*Way forward:* Over the next five months, efforts will continue to further improve the quality of the SIAs with special focus on nomadic populations including scale up of innovative communication channels; monitoring of the routine improvement plan implementation; and roll out of community surveillance.

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<sup>1</sup> Source: UNICEF Zonal Communication Coordinators monthly reports, Rounds 6-9



TAG members commended the significant progress made in addressing the gaps in the response in Ethiopia. The TAG requested close monitoring of the impact of the 35 TAs deployed to support routine EPI at zonal level, timeliness of funds disbursement, measuring of impact of communication activities; and efforts to improve timeliness in detection and investigation of AFP cases in Somali Region.

## Kenya

*Epidemiology:* In 2013 Kenya experienced a WPV1 outbreak with a total of 14 confirmed cases in Dadaab Refugee camps and surrounding host communities of Garissa County. The first case had onset of paralysis on 30 April and the last detected case on 14 July 2013. Fifty percent of the cases had never received OPV. Environmental surveillance was established in Nairobi in October 2013 and WP1 was isolated from the first environmental sample collected on October 12<sup>th</sup> 2013. The virus was closely related to a case detected in Somalia. Subsequent environmental surveillance samples to date have remained negative for WPV.

*SIA:* Tremendous progress has been made in response to the outbreak. In 2013, one NID was conducted while six rounds of SNIDs were conducted in Dadaab refugee camps, host communities, surrounding districts and in other high risk counties and districts. So far in 2014, two NIDs and two SNIDs in 25 high risk counties have been conducted. All of SIAs have used bOPV with two exceptions; in May 2013 some areas of the country used tOPV and others bOPV and the nationwide campaign in November 2013 used only tOPV.

During the December round SNIDs, IPV was administered to children 6 weeks- 59 months along with the bOPV in Dadaab refugee camps and 5 surrounding host communities. Two rounds of the SIAs in 2013 targeted all age groups in the outbreak zone. Independent monitoring data has showed significant improvement in percentage of districts achieving > 90% coverage from 40% in the May 2013 SNID to 86% in the June 2014 NIDs.

Activities implemented to improve the quality of SIAs include a review and update of sub-county micro plans and maps during each round, training/updating of skills of supervisors and vaccination team members during each round. There was engagement of and dialogue with resistant groups identified in previous rounds by the Polio ambassador and County health management teams and daily review meetings by all sub county and County Health Management teams to address observed gaps. The national team provided timely disbursement of SIA funds to operational level, provision of adequate vaccine stocks to counties and teams and ensured monitoring vaccine utilization and wastage rates. There was effective use of in- process monitoring tool by supervisors.

A combination of strategies were used to reach mobile, nomadic, pastoralist and hard to reach populations. Permanent vaccination posts were placed at the border with South Sudan in Turkana and in Kakuma and Dadaab Refugee camps with temporary vaccination posts/mobile teams at border crossing points and special sites. Mobile teams were sent to hard to reach settlements in Mandera, Wajir, Garissa with volunteers, chiefs and community leaders in nomadic settlements assisting in mapping settlements, mobilizing populations and guiding vaccinators.

Communication and social mobilization activities included innovative activities such as use of house to house mobilizers, school and youth strategies. This increased awareness of campaigns by reaching up to 88% of caregivers with polio related messages and programs that contributed to 95%

of all children in Kenya being vaccinated during polio vaccination campaigns held between November 2013 and June 2014. Minimal resistance was experienced across the country in spite of multiple vaccinations and a polio ambassador was deployed to address concerns among pockets of resistant groups.

*Surveillance:* To strengthen surveillance performance, formal training of all 47 county surveillance officers and 69 sub county surveillance officers was conducted with plans to train additional 70 sub county surveillance officers in September 2014. On the job training and supervision and monitoring of surveillance activities at sub county level is supported by WHO surveillance officers, and STOP team members. Community based disease surveillance has been established in Garissa and Wajir counties with plans to roll out to Nairobi in August/September 2014. In addition Community Health strategy units are being engaged in AFP case detection and reporting especially in poor performing and high risk sub counties. National review meetings have been re-established and AFP surveillance performance is monitored weekly with provision of feedback to subnational levels. 507 AFP cases have been reported (413 same period 2013) from all of the 47 counties achieving a national non polio AFP rate of 4.66 and stool adequacy of 85%. About 91% (42) of counties have met the standard non-polio AFP rate of >2/100,000 while 68% (32) of counties that have reported cases have met the standard % stool adequacy of >80%. However with progress and improvement in surveillance performance, gaps exist with silent districts (9%) and stool adequacy below standard in 21% of counties.

A national environmental surveillance plan is in place. Four sampling sites are functional in Nairobi. Sample collection from newly identified and assessed sites in Kisumu and Mombasa will commence in September 2014.

*Routine Immunization:* The MOH is putting together a comprehensive routine immunization improvement plan. A vaccine management assessment conducted in 2013 resulted in a cold chain improvement plan which is already being implemented with provision of cold chain equipment by UNICEF. High risk counties have developed specific plans to reach hard to reach mobile and nomadic populations with routine immunization services with support from county governments. While routine immunization coverage has improve there are areas of suboptimal performance such as high risk areas of the outbreak zone.

*Challenges:* The main challenges include security in high risk and outbreak zones especially along Kenya/ Somalia border areas, difficulty in reaching mobile, nomadic and pastoralist communities, gaps in surveillance performance and suboptimal routine immunization performance especially in high risk and border districts. The devolved system of government with grey areas of coordination mechanisms, lack of clear roles and responsibilities between levels of government, inadequate domestic funding for PEI activities and sustaining the sense of emergency add to the challenges facing the program.

Planned interventions July-December 2014

- Conduct 2 rounds of improved quality SIAs in
  - o NID 8th - 12th November 2014
  - o SNIDs 6<sup>th</sup> -10<sup>th</sup> December 2014 (8 high risk counties)

- Further Strengthen AFP Surveillance activities especially along border and nomadic and pastoralist communities. Train additional sub county surveillance officers, engage community health units in AFP case detection

As recommended at Cross border meeting in Jijiga:

- Develop and implement specific plan and special strategies for cross border areas, nomads, pastoralists and special groups to strengthen RI (CHMT & SCHMT).
- Provide appropriate cold chain, equipment and resources for immunization in all health facilities at borders (MOH, CHMT, SCHMT)
- Identify, prioritize poor performing areas nation-wide, develop and implement RI Improvement plan. (MOH, CHMT & SCHMT)
- Continued advocacy to national and subnational governments for domestic funding for PEI activities

## Sudan

From 2001 to 2007 no cases were seen in Sudan then in 2008, North Sudan detected two polio cases due to P3 wild poliovirus imported from Chad while Southern Sudan was hit by P1 wild poliovirus related to Ethiopia polio case. This virus caused 5 polio cases in Northern states. The last polio case in the Sudan was in March 2009. Since then, no polio case has been reported in Sudan. Sudan has maintained OPV3 coverage above 90 % for the last three years with 93% of districts attaining OPV3 coverage more than 80%.

*Outbreak Response activities:* Following the polio outbreak in the HOA, Sudan updated national and state preparedness plans for poliovirus importation. Mapping of the high risk population (Southern Sudanese and people from African countries) living in all of the states of Sudan was conducted and micro plans for SIAs were made and implemented. Sudan continues collaboration, coordination and information sharing with border countries.

*Access and Security Related issues:* In some conflict affected areas in South Kordofan and Blue Nile states over 180,000 children have not been vaccinated since June 2011. WHO and UNICEF made a polio immunization plan to vaccinate these children; all preparations were done (supplies, logistics, funds, training) by UN and Government of Sudan. Then the campaign was cancelled at last moment.

*SIAs conducted including quality indicators:* One NID and one SNID were implemented during 2014 with reported coverage was above 95% and the independent monitoring results at 97-98%. Another NIDs and SNIDs are planned in next November and December 2014 respectively. There was an improvement in the quality of maps and micro plans for special populations like nomads and IDPs. More attention was paid to effective defaulter tracing in all administrative units of the localities. A special focus is place on refugees and IDPs and vaccination points have been established at cross border points

*Communication:* Social mobilization continues to have a great effect. This was achieved by the activities conducted at local levels such as the use of megaphones by a member of the locality, education and creating awareness in the community and at mosques and publicity by sport and other community figures. Important officials like Motamads, the members of Legislative Council of localities were encouraged to make appearances at areas where the vaccination teams were working

to attract attention and increase coverage. Meetings with Motamad, Executive Directors and Council members, public meetings, school meetings, round table discussions and personal communications also took place.

*Surveillance status:* The AFP surveillance performance indicators remained above certification level for the last 5 years. A risk assessment was done at state (sub-national) level and the results will be used to address surveillance and immunity gaps.

*Challenges:* The challenges facing Sudan include escalation of the armed conflict between Government and rebels in SK and BN and tribal conflict in Darfur states. Changes in habitual nomadic movements due to emerging insecurity. Cold chain destruction and or looting in conflict areas and strengthening the infrastructures and coordination for immunization services in border areas.

*Way forward:* Sudan plans to implement one NID in November and one SNID in December of 2014. In 2015 Sudan plans to conduct 2 NIDs to be held in March and November and 3 SNIDs in the months of April, July and December. Priorities for 2015 are to secure and sustain program funding from GoS and donors, strengthen GAVI relationships, maintain Sudan's polio free status and strengthen links with high risk communities.

The TAG provided two recommendations and that was to conduct the cross border meeting between Sudan and Eritrea and to vaccinate all children at the entrance points to SPLM-N controlled areas in South Kordofan and Blue Nile State

## Yemen

The last wild polio case in Yemen was in 2006. This outbreak began in 2005 and 480 cases were identified. Yemen also had an outbreak of cVDPV3 which occurred in 2012 with three cases and extended to 2013 with one case of onset on 12 July 2013. `

*SIA activities:* In 2013, three rounds of NIDs were conducted with tOPV in January and July and December, each round targeted 4.6 million children. In addition, two rounds of SNIDs in June and October were conducted. In 2014 one NIDs was conducted with tOPV in April. All campaigns reported over 95% administrative coverage. The IMs implemented by WHO showed coverage of 95% and 86% via recall and finger marking respectively. ADRA in collaboration with MoH and WHO covered the entire districts of Al Jowf with coverage of 92%.

Refusals during the SIAs are dealt on the spot by the local health authorities. The local authorities and community leaders are involved and very helpful in convincing many cases. Most of the refusals have been vaccinated in April round; however, there is a need to improve documentation of their vaccinations. The unvaccinated refusal, are enlisted for follow up and actions and will be enlisted for the next rounds. Refusal decreased from 2.3% in January 2013 round to 0.94% in April 2014 round according to the IMs.

*Surveillance:* The AFP surveillance performance indicators for 2012, 2013 and 2014 (up to date) remain above certification level at both the national and sub-national levels. In 2014, non-polio AFP rate is 4.4/100,000 and stool adequacy is 95%. All 22 governorates have non-polio detection rates above 2/100,000. Sa'ada governorate needs to improve of the AFP samples adequacy rate.

*Special populations:* The high risk areas/groups (including mainly the refugees, IDPs, Bedouins and marginalized people) have been identified and mapped and the micro-plans updated accordingly. In coordination with UNHCR and IOM, six permanent vaccination posts have been installed in the coastal area to vaccinate all the new arrivals. Refugees from all ages inside the camps have been vaccinated in April round. The surveillance and immunization indicators for the high risk areas are closely monitored.

Movements of nomadic people are known to local health staff and reflected in the micro plans for SIAs and routine and special plans are set for them. They are mostly located in Hadramout and Al Mahara. There is good relationship and contact between nomads and the districts staff and they usually inform the district when they move to send them the vaccination team wherever they are.

*Routine Immunization:* Yemen attained coverage of 88% in 2014 and only 77% until May 2014 because of the delay in implementation of outreach activities. Comparison of routine coverage during the same period in 2013 and 2014 shows slight improvement in 2014. There are still around 25% of the districts with less than 80% coverage for OPV3.

*Risk:* Yemen remains at high risk for WPV importation and sustained transmission due to civil unrest, areas of insecurity, low routine immunization coverage, internally displaced persons and refugees. In addition, the very low coverage of routine and SIAs in Al Jowf due to the security issue is of great concern.

*Way Forward:* Yemen plans to conduct two rounds of NIDs from 11-13 August and another round from 17-19 November 2014 with bOPV. Yemen will also include bOPV during the MR mass campaign held in September.

The TAG emphasized on the importance of the tackling the 13% non-functional health facilities and the importance of innovative initiative to access the security compromised areas for both immunization and surveillance.

## **Djibouti**

The 10th HOA TAG made four country-specific recommendations for Djibouti: 1) The excellent Government commitment showed by the Director General during February TAG meeting should be translated into concrete support to Polio Eradication and Immunizations activities, as well as resource mobilization, 2) As it is at the cross roads of population movements, Djibouti should map out routes, document magnitude, and give special attention to reach and vaccinate all mobile populations, 3) Introduce independent monitoring to evaluate the SIA coverage, identifying reasons for missing children and take corrective actions, 4) Ensure partners role in building capacities of the EPI program, which is critical to ensure sustainable high quality performance.

Unfortunately no recommendations were completed in full and were partially implemented or with ongoing implementation. It is important to note that on the first recommendation that the interagency coordination committee (ICC) has not met, reflecting the lack of commitment for the programme.

*SIAs:* Are planned for November and December and the third recommendation related to the IM implementation and identify the reasons for missing children, will be fulfilled. IM is planned, for these rounds, the data collection tools have been updated to include reasons for missing children

and refusal. The plan is to use people from other ministries to conduct these activities and the capacity will be built within other ministries

*Nomadic and Mobile Populations:* Mobile populations (nomadic population, migrant and refugees) were tracked and identified and were immunized by Mobile Teams, IOM and UNHCR. The immunization status of all refugees is checked upon arrival; and UNHCR provides them with OPV and other necessary vaccines. The GAVI HSS proposal approved for the period 2015-2019 has a specific objective focused on the hard to reach population and will address this specific issue.

*Risks:* Djibouti has been polio-free since the last clinical polio case was reported in 1999. However given the fact of porous borders, the cross border movement, the circulation of the virus in the neighbouring countries and the low immunity at the remote area, the risk of importation of WPV is still very high risk. Despite this high risk of importation, the AFP surveillance is weak and needs urgent improvement. Illustrating this there had been only one case of AFP reported this year as of 31 July with late notification (inadequate). In addition to this, the routine immunization is fragile and the coverage is decreasing in the three last years.

*Way forward:* The reinforcement of the team by a STOP Team Communication Consultant and the elaboration of a polio communication plan will certainly improve the communication aspect on polio and thus increase the demand. In addition to this, the C4D health strategy which is under implementation, will contribute to increase the utilization of health services including vaccination activities. There is a full agenda planned for the rest of 2014

- Two rounds of polio NIDs planned for November and December with IM
- Training for effective and comprehensive micro planning
- A multi antigen catch up campaign
- Outreach sessions for routine immunization in September
- Training of community health workers and community liaisons on RI and community-based surveillance
- local radio shows to increase community awareness on polio immunization and early detection of vaccine preventable diseases
- training for health personnel on epidemic preparedness and response
- implementation of the community-based surveillance

## **Eritrea:**

Eritrea remains at risk of polio virus importation due to high population cross border movement. The 10<sup>th</sup> Polio HoA TAG meeting held in Nairobi made three recommendations for Eritrea out of which one remains open. The recommendation to conduct a cross border meeting with its neighbour Sudan (in Kassala State) did not materialize; WHO and UNICEF will continue to advocate for its implementation. A resource mobilization strategy was developed where specific investment cases for a comprehensive EPI and Communication for Immunization implementation were designed. However, resources in this area remain scarce.

*Routine Immunization:* Due to unreliable population data, Eritrea's administrative RI coverage remains low (80%) compared to the coverage survey results of above 95%. Strong integration into the health system was adopted as the major strategy for programming to ensure effective use of resources. Eritrea conducted Sustainable Outreach Services (SOS) in the 16 hard to reach areas

integrated with the African Vaccination Week June 2014. Defaulters were traced and Vitamin A supplementation was given to 560,523 children <5 years and 7,989 children were given OPV vaccine. Micro-plans developed at national, regional and sub-regional levels were used to map the nomadic communities where social mobilization plans were also included.

*S/As:* In March and April of 2014, two rounds of Polio SNIDs were conducted in the 7 high risk sub-Zobas (bordering Sudan) targeting 69,124 children < 5. The campaign resulted in immunization of 63,641, children with 92% coverage and 7,051, children < 5 were vaccinated with 97% coverage in the high risk sub zones respectively. 251 Community mobilizers/ health workers were trained on IPC for polio prioritized for High Risk Areas and multiple channels such as community meetings/youth and women group meeting/radio were used to disseminate information to communities. Under the overall guidance of the Technical Communication Working Group, integrated IEC materials were also developed and disseminated; programme and media advocacy was conducted with line ministries and journalists. Communication plan was updated with information on reaching specific nomadic communities however there is a shortage of fund to implement an integrated communication strategy and conduct SOS and SNIDs in low performing and high risk districts.

*Surveillance:* There is a clear surveillance structure in the country with list and map of Health facilities by priority for surveillance at national and sub-national levels. EPI and surveillance focal persons are assigned at all levels. Complete surveillance reports are also made available on weekly and monthly basis. At present, AFP rate is 2.4 and stool adequacy rate 98%. Surveillance indicators are fully achieved at national level however, gaps still exist at Zoba level. The AFP detection rate for two Zoba (in Maakel and NRS) is below 2/100,000 of under 15 years population, the proportion of zero-dose for AFP cases (6–59 months children) was 5% in 2013, compared to 16% in 2012.

Eritrea will continue to integrate EPI into IMCI; CHNW/AVW and SIA/PSNIDs. However, major challenges which include: lack of population data, irregular outreach service due to shortage of fuel, transport challenges for AFP stool specimens shipment out of the country and unavailability of structured community based surveillance system for EPI target disease,

*Way Forward:* Future plans Eritrea polio and RI team include:

- Three rounds of Sustainable Outreach Service (SOS) to be implemented in selected low performing and hard to reach areas,
- Introduction of IPV vaccine in 2015 to routine EPI,
- Maintain Polio free certification standard by strengthening active AFP Surveillance,
- Documentation of best practices in the cold chain management,
- Financial support to implement RI/polio communication strategy,
- Formative research to improve communication planning and EPI/IDSR integrated supportive supervision.

The TAG requested Eritrea to investigate into the contradiction between high coverage of OPV and low routine immunization coverage.

## South Sudan

The armed conflict in December 2013 affected five million people resulting in 1.1 IDPs and had a negative impact on both the health status (cholera outbreak) and health staff performance (being overwhelmed by emergency activities).

*SIA:* Two rounds of SIAs were conducted, integrated with measles, Vitamin A in April in seven relatively stable states. Twenty counties out of 32 in conflict states (Jonglei, Upper Nile and UNITY) are planned to be covered with integrated campaign in the third quarter of 2014. Vaccination coverage survey was conducted after the first round showed coverage of OPV and Measles around 90%.

*Routine Immunization:* Routine vaccination coverage showed continuing decline in the last two years due to funding gap to support the outreach activities due to interruption of GAVI funding coupled with decreased government contribution.

*Surveillance:* Though the surveillance indicators are kept above the international standard of 2 per 100,000, yet severe gaps are identified in the three conflict states. Measures were carried out to cover those gaps through redeployment of the national staff, use of the displaced staff in the IDP camps, active case search and involving the working NGOs on the ground, as a result, 11 AFP cases were reported in the last two months.

Communication activities were enhanced through using the RRM (Rapid Response Missions) and recruitment of herdsmen social mobilizers. Using logissitimo system (an application using web base open software, focusing on transferring vaccine stock management data through mobile technology) to include transferring the surveillance and SIAs data is planned. Social maps updates are continuing. Eleven cross border meetings with Ethiopia, Kenya, Uganda and DRC were conducted. In coordination with MOH, UNICEF and Core Group, 15 cross border sites were selected to carry out all, vaccination and surveillance activities.

*Challenges:* The major challenges facing the program in South Sudan are the volatile security status, increases pressure on the already overstretched polio team, displacement of national staff, floods, weak governmental system and limited funding for routine immunization outreach activities.

*Way Forward:* It is recommended to continue conducting four vaccination rounds, continue collecting community samples and increase the number of the human resources and keep the stoppers for at least another two years.

## Uganda

In October 2006, Uganda was declared free of circulating wild polio virus (WPV) by the Africa Regional Certification Commission (ARCC). However, outbreaks were experienced in both 2009 and 2010. To respond to the outbreaks, a series of campaigns targeting high risk districts were conducted and WPV transmission was interrupted. The ongoing outbreaks in the HOA and the influx of refugees from the neighboring countries continue to pose a serious threat to Uganda. No confirmed cVDPV in Uganda.

The 10<sup>th</sup> TAG meeting made two specific recommendations to Uganda which were implemented; the first was to conduct an evaluation of the risk of WPV importation and progress in routine



immunization coverage which was completed in June 2014. The second improve social mobilization and integration of C4D, is in progress and being supported by in-country partners. Of the 17 cross cutting recommendations 12 are on track and ongoing while 5 have either not started or not applicable for Uganda.

*SIAs:* Following the continued circulation of WPV 1 in HOA and high cross border population movements with an influx of refugees, Uganda continued to intensify its activities of closing the population immunity gap through implementation of Periodic Intensified Routine Immunization Activities (PIRI) in 20 districts in northern Uganda during the 3<sup>rd</sup> weeks of July, August and September 2014. Family health Days and Child days plus activities were implemented. Plans are underway to conduct one NID in all 112 districts in November 2014 followed by SNIDs in December in 41 border districts and districts with refugee settlements preferably synchronizing with other countries. Strict accountability measures for technical and financial outputs at all levels will be instituted to ensure high SIAs quality.

*Routine Immunization:* Uganda has continued to maintain the good RI performance during 2013/14 with HMIS data indicating OPV3 coverage >90%. The proportion of districts achieving above 79% has reached 88% (98) compared to 74% (83) in 2013. Several interventions contributing to these achievements include: concerted efforts to support development of co-located community health facility micro plans with special focus on poor performing districts; establishment of 14 regional supervision teams to conduct on job mentorship at health facility level; mapping and providing services in the urban and peri-urban informal settlements; minimizing vaccine stock outs at operational levels; ensuring a functional cold chain system; and intensified social mobilization and communication efforts. Plans are under way to mobilize resources for data quality improvement and data validation.

Communication efforts were intensified use of radio messages and then increased use of U-Report, a SMS based system encouraging youth to respond to questions, to measure effectiveness of radio messages. There has also been further engagement with religious institutions, sensitization of immunization elders in Karamoja sub region together with a media orientation. The African Vaccination Week is an opportunity to support the worst performing districts to develop community health facility micro plans and increase district ownership with school involvement resulting in better community demand for immunization services.

Special activities were conducted in high risk areas such as refugee affected districts and included cross border meetings between South Sudan and Uganda. Key outputs were establishment of immunization posts at transit points and refugee camps, assessment of cold chain capacity for border health facilities and establishment of district cross border teams/committees as a forum for information sharing. A total of 121,577 South Sudan refugees have been received in Uganda since mid-December 2013 and have settled in four districts (Adjumani, Arua, Kiryandongo and Kampala). 13,804 refugees below 15 years of age were vaccinated with OPV at transit points and in refugee camps well as 9,391 refugees aged 9M-5 years were vaccinated against measles.

*Surveillance:* The national AFP detection rate in 2014 was 3.15 compared to 2.85 in 2013 with 58% and 63% of the districts achieving a rate of >2/100,000 in 2014 and 2013 respectively a slight drop in 2014. The stool adequacy rate at the national level remained above 80% with over 60% of the districts achieving a rate of ≥80%. However, significant surveillance gaps still persist at the sub-

national level mainly due to knowledge gap of clinicians, sub optimal active surveillance activities due to lack of resources resulting from delayed fund releases by national level because of late submission of receipts and inadequate support supervision by the central level. However the national (27 members) and International (2 members) STOP teams will continue with the capacity building efforts at the sub national level, central teams to strengthen the supportive supervision visits for regional hubs and continue with resource mobilization to roll out IDSR trainings at the health facility level with a focus on training surveillance focal persons at the health facility level.

*Way Forward:* The comprehensive EPI reviews (including surveillance, Pneumococcal Vaccine (PCV) post introduction evaluation (PIE) and financial reviews in October 2014 will provide additional evidence and information to improve further immunization services delivery.

The TAG members again commended Uganda for the continued efforts to sustain good RI coverage rates that should be exemplary and urged the country to document the good practices and lessons learnt. The community mobilization is very impressive and results evident. The 20% increase in RI data 2012 – 2013 needs to be validated using standardized tools and methods. The members were concerned about the stagnation of surveillance indicators with up to 17 silent districts and urged Uganda to implement the 2012 surveillance review recommendations and providing regular updates on progress. Effort to immunize all Southern Sudanese and continue to ensure every eligible child in camps is protected. Similar efforts should be instituted to reach the mobile/nomadic populations and the innovation of “immunization elders” could be used in the polio SIAs.

## Tanzania

Tanzania has maintained polio free so far. However the efforts need to be sustained and even intensified to remain polio free. For Tanzania the key recommendations were 1) fill gaps and strengthen surveillance and develop a response plan. 2) Better analysis of migrant populations, and 3) improve routine immunization.

*Routine Immunization:* Tanzania has maintained high routine coverage; 91% of routine OPV3 coverage with 84% of districts having greater than 80% coverage. Polio resources such as surveillance officers, vehicles and communication resources are contributing to the general RI system improvement. At the same time, for Tanzanian, there is no choice but to integrate polio response to RI, because polio specific support is increasingly limited. Tanzania is in the top 10 in ESAR countries with largest number of un-immunized/under-immunized children and there are communities with pockets of low coverage. Integrated approaches include child health days and pairing immunization with other campaigns. Work is underway to increase the quality of Reaching every Child (REC) through micro planning, outreach and supportive supervision.

Although routine coverage is good, Tanzania is at risk, if not at high risk, therefore it is important to organize and SIA, taking advantage of the upcoming MR campaign. Maintaining the sense of emergency at all level is a challenge but important in the Tanzanian context.

*Mobile populations:* Three main group of migrant population groups are known, which are also mentioned in the regional study report. The first group is illegal transit from Somalia, Kenya through Tanzania towards South Africa along the coast as well as highway for economic reasons. The second group is the seasonal cross border move of pastoralist between Kenya and Tanzania; mostly by Masai and some other group. And the third group is mostly fisherman between HoA and Tanga,

Pemba. However, the magnitude of the migration is difficult to estimate. There is no clear number/magnitude of migration, either illegal economic migration to the south or pastoral migration mostly by Masai.

*Surveillance:* Key elements of surveillance include training of new staff and traditional healers, conducting quarterly risk analysis and prioritized deployment of NSTOP and zonal officers. National STOP teams have been deployed since 2012 and the last team went to the field in June 2014. In 2014, 3169 HCW and 110 traditional healers were trained to complement surveillance and active search continues to be conducted in 240 high risk facilities and 457 middle risk facilities. As the result, non-polio AFP rate is maintained >2, adequate stool sample is >80% and NPENT has improved to 7.8%. Currently work is underway to integrate surveillance into local government plans and budgets for sustainability.

An emergency response plan was developed in 2009 and updated in 2011 and 2013 when there were outbreaks of WPV in neighboring Kenya. Therefore the country did not make further updates in 2014, however, high risk analysis is conducted quarterly involving stakeholders to identify the gap for prioritized intervention such as deploying the STOP team, additional support for Reaching Every Child and supportive supervision.

## **Annexure II: HOA Plan to close the outbreak and strategies for risk mitigation**

The program identified three key risks to stopping wild virus transmission in the HOA:

- the half million (substantially) unreached children in Non-SIA areas of South Central Somalia,
- the suboptimal accessing of 'hard to reach'/ 'pastoral' communities in Somalia and in Ethiopia, and
- the existence of areas of suboptimal surveillance as evidenced by missed transmission.

In view of the above, the HOA Coordination office, in coordination with countries, developed a plan for closing the outbreak, and also strategies for risk mitigation. The plan is summarised below.

### **Objectives**

1. Strengthen sensitivity of surveillance to detect the lowest levels of transmission
2. Urgently close the outbreak by interrupting transmission in Somalia and Ethiopia with no further cases.
3. Mitigate risks.

### **Strategies**

The plan envisages the following strategies to achieve its objectives:

#### ***1. Strengthen surveillance in Somali region of Ethiopia, and in inaccessible and hard to reach areas of Somalia***

- Strengthen and expand community based surveillance
- Involvement of clan / community leaders for sensitization and reporting of AFP cases
- Collection of stool samples from healthy children from high risk areas/ populations not reporting any AFP case for more than 8 weeks
- Continue contact sampling for every AFP case in high risk areas / populations
- Closely track the surveillance in high risk areas and take corrective actions for gaps

#### ***2. Develop and implement special strategies to reach all pastoral communities and hard to reach areas of Somalia and Ethiopia***

- Identification of all pastoral communities and settlements, and inclusion of all of these in microplans. Deployment of special teams to vaccinate the children in these communities as well as strengthening monitoring and supervision.
- Exploring other opportunities for vaccination like 'vaccination at water points' to reach this population.
- Reviewing and strengthening the transit point strategy to reach these communities.
- Ensuring appropriate communication messages using the most viable channels.

#### ***3. Intensify the strategies to reach children in Non SIA areas of Somalia***

- Maintain the state of preparedness for conducting expanded age SIADs in newly opening areas
- Review and strengthen permanent vaccination points with focus on children coming out / going into Non SIA areas

- Disaggregate the data from permanent vaccination points as per the nature (cross border, around inaccessible areas, water points, IDP etc.) and track data for the trends
- Continue to explore low key vaccination activities by other agencies

**4. Conduct high quality SIAs focused on infected and areas at higher risk**

- Ensure timely availability of adequate funds and resources at lowest level for effective implementation
- Continuing to expand independent monitoring with focus on reaching ‘hard to reach’ and ‘nomadic’ communities.
- Exploring and implementing LQAS in some high risk areas.

**5. Sustain sense of Emergency until outbreak is declared closed**

**6. Ensure full implementation of accountability framework in infected areas**

**7. Conduct next quarterly outbreak response assessment in Somalia and Ethiopia in September 2014**

**8. Strategies for risk mitigation:**

- Maintain population immunity in high risk areas by conducting at least 2 SIAs second half of 2014.
- Strengthen sensitivity of surveillance by close monitoring and corrective actions.
- Monthly surveillance review meetings at national level
- Sustain HR surge till end 2014 with provision to review and agree on needs in 2015 by end of October 2014.
- Closely monitor the situation and take steps to maintain high population immunity and sensitive surveillance in South Sudan and Yemen
- Governments should consider national financing for polio eradication activities.
- Develop and implement special strategies to reach all pastoral, nomadic and hard to reach areas with Routine Immunization services.
- Firm up and implement a plan for using polio infrastructure for strengthening RI.

**Planned SIA calendar**

Country	2014					2015*		
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Somalia	NID-b	NID-t	SNID-b	NID-b		NID-b	SNID-b	NID-t
Ethiopia		SNID-b		NID-t	NID-b		SNID-b	SNID-t
Kenya				NID-b	SNID-b		SNID-b	SNID-t
South Sudan				NID-t	NID-t		NID-b	NID-t
Yemen	NID-b	NID-t		NID-b			SNID-b	NID-t
Uganda				NID-t	SNID-t			SNID-t
Sudan				NID-t				SNID-t
Djibouti				NID-t	NID-t			
Eritrea								
Tanzania								

\*Plan for 2015 tentative at the time of 11<sup>th</sup> HOA TAG meeting

## **Annexure III: List of participants**

### **Technical Advisory Group members**

1. Dr Jean-Marc Olivé, Chairman
2. Dr Rafah Salam Aziz, TAG Member
3. Dr Yagob Yousef Al-Mazrou, TAG Member
4. Dr H. El Zein Elmoussaad, TAG Member
5. Dr Robert Linkins, TAG Member
6. Mr Carl Tinstman, TAG Member

### **Technical Advisors**

7. Mr Christopher Maher, WHO/EMRO
8. Dr Samuel Okiror WHO/AFRO
9. Dr Nestor Shivute WHO/AFRO
10. Dr Hala Safwat, WHO/EMRO
11. Dr Hemant Shukla, WHO/HQ
12. Mr Thomas Moran, WHO/HQ
13. Ms Sara Lowther, CDC/USA
14. Mrs Sherine Guirguis, UNICEF/HQ
15. Mr Andisheh Ghazieh, UNICEF/HQ
16. Dr Brigitte Toure, UNICEF/ESARO
17. Mr Rustam Haydarov, UNICEF/ESARO
18. Mr Martin Notley, UNICEF/ ESARO
19. Mr Karl Spence, UNICEF/ESARO
20. Dr Ndeye Fatou Ndiaye UNICEF/MENARO

### **National (MOH) Representatives and participants**

21. Mr Osman Abdi Omar, MOH, Mogadishu, Somalia
22. Ms Samira Mohamed Osman Ibrahim, MOH, Sudan
23. Dr Ali Bin Break, MOH, Yemen

### **Partner Representatives (International/Regional)**

24. Ms Sue Gerber, Bill and Melinda Gates Foundation
25. Mr Endale Beyene, USAID/Washington DC
26. Mr Frank Conlon, CORE Group Polio Project (CGPP), Washington DC
27. Mr Lee Losey, CORE Group Polio Project (CGPP)
28. Dr Victoria Gammino, CDC

### **UNICEF and WHO Secretariat**

29. Mr Moktar Ahmed Omar, UNICEF Djibouti
30. Mrs Awet Araya, UNICEF/Eritrea
31. Mrs Shalini Rozario, UNICEF/Ethiopia
32. Mrs Leila Abrar, UNICEF/Kenya
33. Dr Dhananjay Gupta, UNICEF/Somalia
34. Dr Saumya Anand, UNICEF/Somalia
35. Mr Pervaiz Chaudhary Mohd Parvez Alam, UNICEF/Somalia
36. Mr Khattab Mustafa Obaid, UNICEF/Sudan

37. Dr Eva Kabwongera, UNICEF/Uganda
38. Dr Tadashi Yasuda, UNICEF/Tanzania
39. Mr Kidanemariam Yihdego Tzeggai, WHO/Eritrea
40. Dr Fiona Braka, WHO/Ethiopia
41. Dr Iheoma Ukachi Onuekwusi, WHO/Kenya
42. Dr Raoul Kamadjeu, WHO/Somalia
43. Dr Yehia Mostapha, WHO/South Sudan
44. Dr Ahmed Hardan, WHO/Sudan
45. Dr Osama Mere, WHO/Yemen

**WHO Secretariat, EMR**

46. Ms Wallaa El Moawen, WHO/EMRO
47. Mr Hossam Younes, WHO/EMRO